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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,321	10/29/2003	Steven Ochs	2003-053-TAP	6542

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BROOKS KUSHMAN P.C. / SUN / STK  
1000 TOWN CENTER, TWENTY-SECOND FLOOR  
SOUTHFIELD, MI 48075-1238

EXAMINER

OLSON, JASON C

ART UNIT	PAPER NUMBER
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2627

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/696,321	OCHS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jason C. Olson	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 9, 11-16, 20, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Barbian et al. (U.S. Pub 2005/0052772 A1), hereafter “Barbian”.

Regarding claim 1, Barbian teaches at least one tape drive tray (see figure 1, storage subsystem 100 contains a tape drive 102); an intelligence module within the at least one tape drive tray (see figure 1; the storage subsystem controller 101 is an intelligence module in the storage subsystem 100), said intelligence module having electronics to control and monitor tape drive tray functions in the storage library (see par. [0002], ln. 4-9); and a main library controller interfaced to the intelligence module (see figure 2, Host 210 is a main library controller that is interfaces with the storage subsystem controller 201 via connection 212) wherein the intelligence module sends tape drive tray function data to the main library controller (see par. [0034], ln. 1-13, par. [0038], ln. 1-8, par. [0039]; functional information about the tape drive tray from device segment 422, contained in auxiliary memory region 406 is obtained and transferred by the storage subsystem controller 201 via the auxiliary memory emulator 220 when commanded by the host 210).

Regarding claim 2, Barbian teaches the intelligence module interface includes a tape transport interface port (see par. [0002], ln. 4-9, the tape picker is a tape transport device that is interfaced with the storage subsystem controller 101).

Regarding claims 3 and 4, Barbian teaches the tape drive tray function data is sent via a wireless connection (see par. [0030], ln. 6-9) and the wireless connection includes at least one a radio frequency or infrared transmission (see par. [0061] and figure 8, the link between the host management 810 and storage device is infrared).

Regarding claim 5, Barbian teaches wherein the main library controller transmits commands to be performed on the tape drive tray by the intelligence module (see par. [0033], ln. 4-6 and par. [0034], ln. 1-9).

Regarding claim 9, Barbian teaches the tape drive tray includes at least one of a tape drive, a power supply, a fan, a temperature sensor, and a fault indicator light, each interfaced to the intelligence module (see par. [0002], ln. 4-6).

Regarding claim 11, Barbian teaches the tape drive tray function data is gathered by periodically sampling status signals from the tape drive tray (see par. [0039] and par. [0044]; the host samples the historical data and error data status information gathered in the storage subsystem controller to analyze it).

Regarding claims 12-16, 20, and 22: method claims 12-17, 20, and 22 are drawn to the method of using the corresponding apparatus claimed in claims 1-6, 9, and 11. Therefore method claims 12-17, 20, and 22 correspond to apparatus claims 1-6, 9, and 11 and are rejected for the same reasons of anticipation as used above.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barbian in view of Carlson et al. (U.S Pat. 2004/0056568 A1), hereafter "Carlson".

Regarding claim 6, Barbian fails to teach positive or negative acknowledgment of the commands is sent back to the main library controller after the commands are received by the intelligence module. However, Carlson is relied upon to teach positive or negative acknowledgment of the commands sent back to a library controller after the commands are received by an elevator (see para. [0048]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon library control of Barbian by applying the teaching of positive or negative acknowledgement of commands as taught by Carlson in order to provide necessary communication between the controller and the module being controlled to indicate appropriate action by the module as indicated by Carlson in paragraph [0048].

Regarding claim 17, method claim 17 is drawn to the method of using the corresponding apparatus claimed in claim 6. Therefore method claim 17 corresponds to apparatus claim 6 and is rejected for the same reasons of obviousness as used above.

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Claims 7, 8, 10, 18, 19, 21, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barbian and Armagost et al. (US PUB 2005/0057847), hereafter “Armagost”.

Regarding claims 7, 8, and 10, Barbian teaches that the library controller and the intelligence module transmits commands and function information back and forth (see par. [0034], ln. 1-9), but fails to teach the commands are transmitted in a serial format; the intelligence module decodes the serially formatted command into discrete signals corresponding to a specific tape drive tray interface; and the functional information is sent back in a serial format. However, Armagost is relied upon to teach transmitting commands in a serial format, decoding the commands and transmitting functional information back in serial format (see para. [0322] and figure 51D; the communication between the magazine drive connector 1514 (which receives commands from the library controller) and the drive 1602 is done through a serial to parallel converter 1598 (decoder); the drive together with the converter constitute and intelligence module).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon the communication between the library controller and the intelligence module of Barbian by applying the teaching of communicating data in a serial format as taught by Armagost for the purpose of reducing the number of pads associated with the drive connector as described by Armagost in paragraph [0322], lines 1-6.

Regarding claims 18, 19, and 21: method claims 18, 19, and 21 are drawn to the method of using the corresponding apparatus claimed in claims 7, 8, and 10. Therefore method claims 18, 19, and 21 correspond to apparatus claims 7, 8, and 10 and are rejected for the same reasons of obviousness as used above.

Regarding claims 23 and 25, Barbian teaches transmitting data from a tape drive tray to a main library controller, wherein the data to be transmitted is gathered by an intelligence module within the tape drive tray, comprising: periodically sampling status information generated from devices within the tape drive tray; and sending the status information to main library controller (see par. [0039] and par. [0044]; the host samples the historical data and error data status information gathered in the storage subsystem controller to analyze it); transmitting control data to the tape drive tray; receiving the control data at the tape drive tray; and using the intelligence module to drive discrete signal lines to a state as specified in the control data (see para. [0034], ln. 1-15).

Barbian fails to teach that the commands are transmitted in a serial format; the intelligence module decodes the serially formatted command; and the functional information is sent back in a serial format. However, Armagost is relied upon to teach transmitting commands in a serial format, decoding the commands and transmitting functional information back in serial format (see para. [0322] and figure 51D; the communication between the magazine drive connector 1514 (which receives commands from the library controller) and the drive 1602 is done through a serial to parallel converter 1598 (decoder); the drive together with the converter constitute and intelligence module). It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon the communication between the library controller and the intelligence module of Barbian by applying the teaching of communicating data in a serial format as taught by Armagost for the purpose as stated above.

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Regarding claim 24, the combination of Barbian and Armagost teaches generating status information including at least one of a tape drive, a power supply, a fan, a temperature sensor, and a fault indicator light (see par. [0002], ln. 4-6 of Barbian).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection. Claims 1-5, 9, 11-16, 20, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Barbian; claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barbian in view of Carlson; and claims 7, 8, 10, 18, 19, 21, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barbian in view of Armagost.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason C. Olson whose telephone number is (571)272-7560. The examiner can normally be reached on Monday thru Thursday 7:30-5:30; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571)272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JCO/

/William R. Korzuch/

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